



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,842	11/30/2000	Francis James Canova JR.	PALM-3520 . US . P	3911

7590 08/24/2004
WAGNER, MURABITO & HAO LLP
Two North Market Street, Third Floor
San Jose, CA 95113

EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
----------	--------------

2674

DATE MAILED: 08/24/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/727,842

Applicant(s)

FRANCIS CANOVA

Examiner

Abbas I Abdulsalam

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,6,8-17 and 19-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,8-17 and 19-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Response to Arguments***

1. Applicant's arguments filed on 05/28/04 have been fully considered but they are not persuasive.

Applicant argues that the cited reference, Ho (USPN 6407757) does not teach “measuring the amount of bending” as recited in claim 1. However, Ho teaches an application of force on the sensor area (121) using the thumb (122), the movement through a document beginning from that page/point onwards, and discloses that the speed of movement is proportional to the force applied as before. Ho also teaches the sensor area (121) on the browsing device 100 (e.g., FIG. 1B) is made up of a force and position sensor that is used to sense the force and position of the thumb 122 (or one of the other fingers) on that area. Ho teaches that the signals representing these two parameters are made available through a Force and Position Signals Generator Circuit (801). See col. 14, lines 21-28, col. 25, lines 41-63 and Fig. 8. It would have been obvious that the circuit (801) in Fig. 8 equivalently provides the desired measurement. Applicant also argues that the reference does not teach “the mount of bending of flexible layer being measured such that the change to the display is according to the measured amount of deflection of the flexible layer”. However, Ho teaches as shown in Fig. 2 an assembly (200) which is electrically and operatively connected to the computer (205) with left and right thumbs (172, 122) operating on the left and right sensor areas (171 and 121) respectively, such that thumbs apply the flipping force to the sensors (121, 171, col. 21, lines 1-3). Ho further adds that depending on the magnitude of the force applied with respect to flipping, different forms of display (600) can be created (col. 21, 11-67 and Fig. 6A). In addition, Ho's Fig. 7 shows a browsing device (740)

Art Unit: 2674

used in conjunction with a computer screen (721) of displaying various pages. Ho teaches the user's finger applying various amount of force (F_1 , F_2) with respect to the speed of flipping, and discloses that the speed of flipping of one page or the number of pages flipped across at any given time) increases as the force on the sensor 121 or 171 of the browsing device (200) increases (col. 29, 56-67, col. 30, lines 1-10 and Fig. 10A-10H). Therefore it would have been obvious to utilize Ho's application magnitude of the force to the sensors with respect to flipping to meet the desired feature, "the measure amount of deflection of the flexible layer". Further it would have been obvious to utilize Ho's "speed of flipping" to achieve another desired feature, "the rate of movement of the of the flexible layers". Furthermore, it would have been obvious to utilize Ho's application of force to the sensors and the speed of flexible layers with respect to various formation of display (721) as illustrated in Fig. 7. Applicant further argues that that the reference does not teach the "stack being coupled along its edge to the housing of a computer system". However, as shown in Fig. 2, Ho teaches a browsing device (200) whose one side is connected with a computer (205) as shown in Fig. 2A. Also as mentioned in the art rejection below, Ho further teaches a method of generating flipping pages from a document stored in some media on a personal computer such as lab tap. See col. 20, lines 29-33.

Art Unit: 2674

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-6, 8-17 and 19-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho (USPN 6407757).

Regarding claims 1, 11 and 21, Ho as shown in Fig. 7 teaches a browsing device (740) sending signals through a bus (741) to a computer input port (730) and to a browsing /viewing software, (720), so as to effect operations on the screen (721) of the computer. Ho teaches a conversion software (710) enabling to pre-convert a document (701) to be used in conjunction with a browsing device (740). See col. 25, lines 10-40 and Fig. 7. However, in Fig. 7, Ho does not illustrate a user interface including “a plurality of flexible layers” fastened to each other along a single edge in a stack, and not fastened to each other along other edges. On the other hand, Ho teaches as shown in Figs (15A-15C) a device (1500) which includes may thin, hard and flexible pieces of material (1501) bound together in a manner of a binding of pages in a book. See col. 33, lines 26-37. Further, Ho teaches that device (1500) has four buttons (1511-1514) on the top surface (1530), and four buttons (1531-1534) on the bottom surface (1530) serving as function buttons as shown in Fig. 15B.

Art Unit: 2674

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace Ho's browsing device (740) by a device (1550) of Fig. 15 for the purpose of browsing or scrolling through documents or any information stored in the computer.

Furthermore, Ho teaches as shown in Fig. 2 an assembly (200) which is electrically and operatively connected to the computer (205) with left and right thumbs (172, 122) operating on the left and right sensor areas (171 and 121) respectively, such that thumbs apply the flipping force to the sensors (121, 171, col. 21, lines 1-3). Ho further adds that depending on the magnitude of the force applied with respect to flipping, different forms of display (600) can be created (col. 21, 11-67 and Fig. 6A).

Regarding claim 11, in addition to what has been described, Ho as shown in Fig. 4A teaches a movement through a document under the control of thumb on the browsing device such that the amount of force applied by the thumb determines the initiation of movement through document (405, 406) as well as positions (406). See fig. 4A. It would have been obvious that the "initiation of movement through document" can be used to satisfy the desired detection of movement of the layers. Ho teaches the user's finger applying various amount of force (F1, F2) with respect to the speed of flipping, and discloses that the speed of flipping of one page or the number of pages flipped across at any given time) increases as the force on the sensor 121 or 171 of the browsing device (200) increases (col. 29, 56-67, col. 30, lines 1-10 and Fig. 10A-10H).

Regarding claim 21, in addition to what has been described above, Ho teaches a computer-based process permitting different organizations of material corresponding to display format including organized pages that can be flipped. See col. 7, lines 22-43. Ho further teaches a method of generating flipping pages from a document stored in some media on a personal

Art Unit: 2674

computer such as lab tap. See col. 20, lines 29-33. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the lab tap as a personal computer for the purpose of organizing and incorporating the flipping technique.

Regarding claims 2, 12 and 22, Ho discloses an open fan display for displaying pages used in conjunction with the flipping method (500) (Fig. 5A, 6A). Ho teaches that the flipping is to take place using at thumb (122). See col. 21, lines 12-23. It would have been obvious the flipping constituted separation of one page (602) from the other (603) and hence meets “the desired separation of a first flexible layer from a second flexible layer.”

Regarding claims 3, 13 and 23, Ho teaches as shown in the Fig. 14, a process by which the flipping display of Figs (13A-13B) is generated. Ho details flipping action with respect to moving points (1404, 1405) and arcs (1406) generated based on the equation illustrated in Fig. 14C. It would have been obvious the movement on the curve shown in Fig. 14 meets flexibility separation as well as contacting of pages.

Regarding claims 14, 17, 24-25 and 27, Ho teaches as shown in Fig. 13A a page (1301) bending as it is being flipped from right to left. See col. 32, lines 55-56.

Regarding claims 5 and 15, Ho teaches the position of the thumb (122) in the x direction on the sensor area as detected by the position sensors (121) on the slanted surface (120). See col. 13, lines 1-18.

Regarding claim 8, Ho discloses flip through the pages at varying speeds depending on the need to view the material in the book. See col. 2, lines 37-42.

Regarding claims 9-10 and 19-20, see Fig. 7 (730, 740).

Art Unit: 2674

Regarding claims 6, 16 and 26, Ho teaches that teaches a computer-based process in which organization of materials are used including organizing into pages that can be flipped through page by page from right to left or vise versa. See col. 7, lines 21-30. It would have been obvious that such a flip maintains the order of the pages and hence meets the desired order in which flexible layers are moved.

Regarding claim 28, Ho discloses flip through the pages at varying speeds depending on the need to view the material in the book. See col. 2, lines 37-42.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Art Unit: 2674

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.

Abbas Abdulsalam

Examiner

Art Unit 2674

August 17, 2004


RICHARD HJERPE 8/20/04
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600